Fig, 1: Topological view of a traditional file sharing system

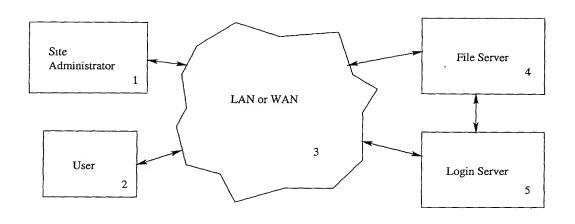


Fig. 2: Topological view of the ICQ member system

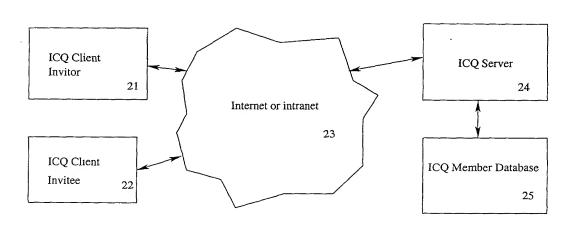


Figure 3: Topological view of the online photo community

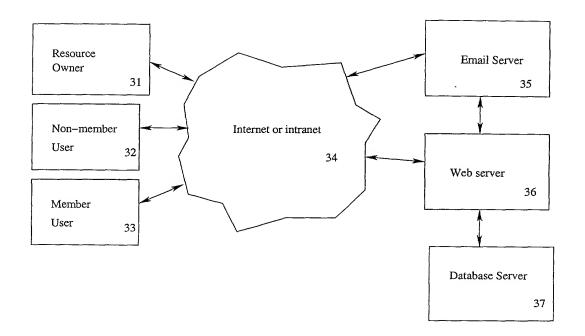


Fig. 4: State diagram of a trusted administrator group system

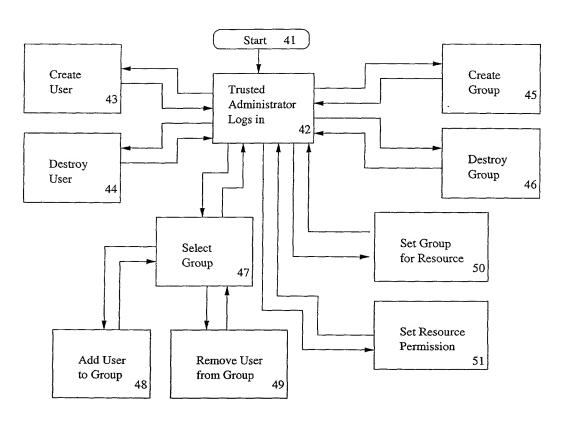
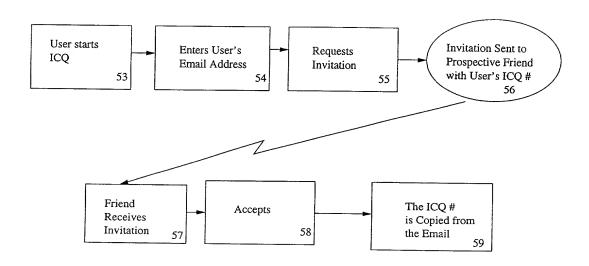


Fig. 5: State diagram of the ICQ member system



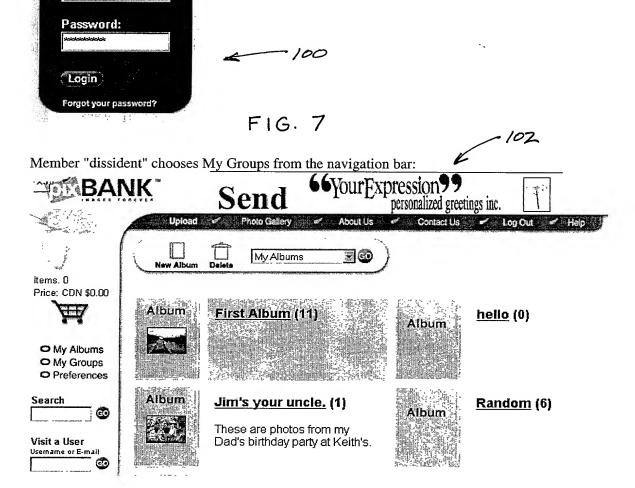
Start 61 Create Resource Group 65 Owner Select Logs in 62 Group 67 Destroy Group 66 Remove User from Group 69 Set Group for Resource 70 Invite User to Group 68 Set Resource URL is Permission emailed 72 71 Invite Database URL with updated with cookie group and created user User Receives Invitation URL with Cookie Fills Out Non-member Sign-up User Clicks on Information URL 76 77 Member User Clicks on 74 URL User is Added Member Logs In to Group

Fig. 6: State diagram of the online photo community

Member "dissident" logs in:

Member Login User name:

dissident



F168

Member "dissident" chooses create group:
Create Group New Member Remove Member Rename Delete Mega-Flops
Member "dissident" names the group "sample group":
Create a New
Group
Name: 106 Create Group Cancel Member "dissident" adds new members: F16. 9
Add Members to Group:
sample group ▼
You can enter e-mail addresses or pixBANK usernames in the following fields. We will send e-mail to each of these people to invite them to join your group. Please double-check all of your addresses Where possible, it is better to use the person's pixBANK username.

Note that both members who have signed up previously and non-members can be invited.

Send Invitations

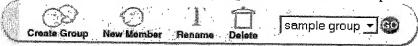
steve1

F16 10

Cancel

FC 108

The site emails off invitations. The group shows that there are 2 pending group members:



Group Members	Shared Albums	
Group "sample group" has no members. Invite New Members	First Album P hello D Jim's your uncle. Random Travels Update	~ 110

This group has 2 pending invitations

Manage Invitations

FIG. 11

112

To see which members have not yet joined, Manage Inivitations can display pending invitations and allow for re-requesting or blocking members that weren't requested:

Manage Group Invitations

	□ dmwick@excite.com □ steves		114
Select All	Delete Selected Invita	ations	
Resen	d Selected Invitations	Cancel	

Now non-member <u>dmwick@excite.com</u> receives an email:

Date: Thu, 08 Feb 2001 11.37:44 PST

From: "www-data" <www-data@opengraphics.com> [Add to

To: dmwick@excite.com
Subject: pixBANK Group Invitation

The pixBANK member 'dissident' has invited you to join one of his/her photo sharing groups. If you would like to join this group, please click on the following URL.

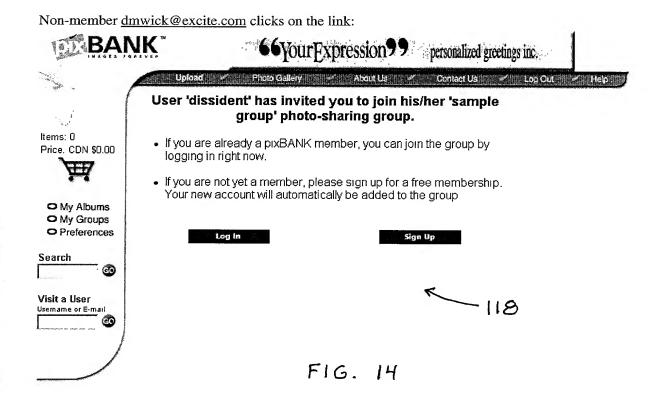
http://demo.pixbank.com/jg.php3?id=163_3c74bf8c

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If you are not interested, please just ignore this e-mail.

Thank you, The pixBANK Robot

P.S. pixBANK is a website that facilitates on-line storage, sharing and professional-quality printing of your home photos. Please feel free to visit our site at http://demo.pixbank.com/ if this service interests you.



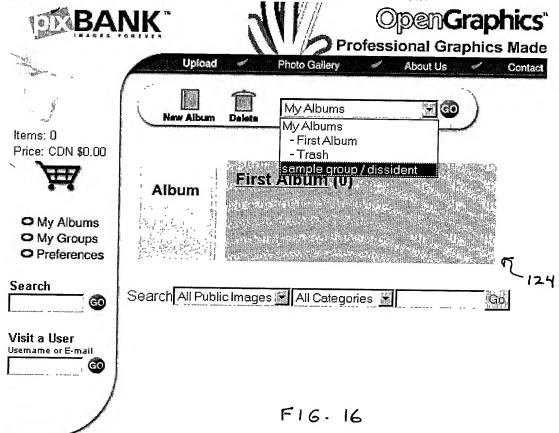
If the users had an existing users account but registered under a different email address, then the Log In option would make sense. But this user needs to create an account via Sign Up:

New User Information

Usemame:	patent	* *
E-mail Address:	dmwick@excite.com	· * / 122
Password:	Jolokolokolok	
Re-type password:	statelalatak	* 5
	iodic pixBANK updates messages by e-mail.	- 120 5.
Sign Up Priva	icy Policy Terms of Us	<u>se</u>

F16. 15

The non-member <u>dmwick@excite.com</u> becomes member "patent". Member "patent" views the list of available albums and finds the chared albums from dissident available:



Member "patent" can access and use the albums that belong to the group called "sample group" owned by member "dissident"



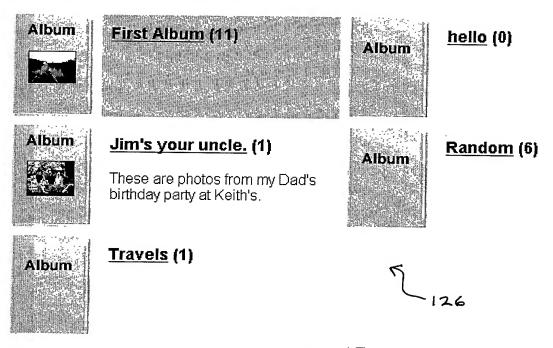


FIG. 17

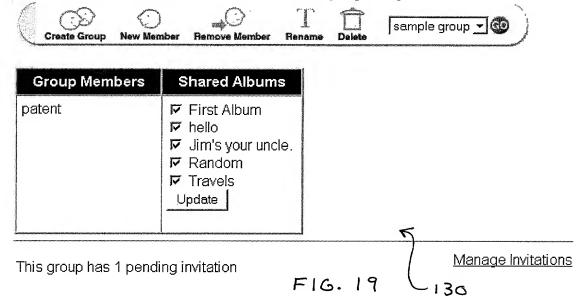
Now that member "patent" has joined the group, member "dissident" sees a system message:



By choosing to view the system message, member "dissident" learns who has joined his or her group:

			System Message	s			
Г	patent has joined your group	group 'samp	The pixBANK member 'patent' has accepted your invitation to join the group 'sample group' They should now be able to view photos in any of this group's shared albums.				
	Delete Selected	Messages	Delete All Messages	Cancel		<u> </u>	

Member "dissident" now sees the new member in the group listing:



Also there is still a pending invited membership for the group. Finally, member "dissident" can remove users that are no longer welcome:

Remove Group Members

Please select which members you would like to remove from group "sample group"

